# ModuLED Micto Modular Passive Star LED Cooler Ø86mm



# Features & Benefits

- For spot and downlight designs from 1,200 to 5,500 lumen
- Thermal resistance range Rth 1.2 1.8°C/W
- Modular design with mounting holes foreseen for a wide range of LED modules and COB's:
  - Zhaga Book 3 Spot Light Modules Edison Edilex SLM, Osram PrevaLED Core AC / AC PRO / Z3 / Z4, Philips Fortimo SLM, Seoul Semiconductor Acrich AC Zhaga, Sharp INTERMO, Tridonic Talexx Stark SLE G3 / G4, Vossloh Schwabe Luga Shop, ...
  - Bridgelux BXRA ESS, ESR, Vero & Décor Vero 10/13/18, V-series Citizen Citiled CLL022-CLU024-CLU026-CLU028, CLL032-CLU034-CLU036-CLU038, CLL042-CLU044-CLU046-CLU048, CLU700, CLU710, CLU720
  - Cree XLamp CXA13, CXB13, CXA15, CXB15, CXA18, CXB18, CXA25, CXB25

  - Edison EdiPower II Star/HM series
  - LG Innotek LEMWM18 10W, 13W, 17W, 24W, LEMWM28, Eagle Eye Lumileds Luxeon COB's 1203, 1204, 1205, 1208, 1211, 1216, Luxeon K arrays K12, **K16**
  - Luminus CLM-9, CXM-9 (ACxx), CHM-9 (ACxx), CXM-11 (ACxx), CHM-11, CLM-14, CXM-14 (ACxx), CHM-14 (ACxx), CXM-18 (AC30), CLM-22, CXM-22
  - Osram PrevaLED Cube, Osram Soleriq P6, P9, P13, S13, S19, E30
  - Philips Fortimo DLM Gen5
  - Prolight Opto PACE, PACF, PACG, PABS, PABA, PACB, PACC, PACD
  - Seoul Semiconductor ZC6, ZC12, ZC18, ZC25, ZC40
- Sharp Mega Zenigata, Tiger Zenigata, Mini Zenigata Tridonic TALEXX Stark SLE GEN3-19, -23, Mini LES-10, LES-17, TALEXXmodule SLE GEN4 10/15/19/23mm, 15mm D50, SLE GEN5 06/11/15/19/23mm, SLE GEN6 10/15/19/23mm, 15/17mm D50, DLE GEN2, GEN3 65mm
- Vossloh Schwabe Luga Shop C 2016 DMC 124, 125, 128
- Diameter 86mm Standard height 30mm & 50mm & 80mm Other heights on request
- Extruded from highly conductive aluminum



# **Order Information**





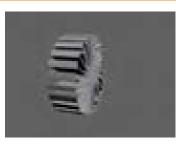
Madul ED Micto is designed in this way that you can mount LED modules from various manufacturers on the same LED cooler Simple mounting with self tapping screws Recommened screw force 6lb/in Screws are avaliable from MechaTronix



# ModuLED Micto Modular Passive Star LED Cooler Ø86mm



# **Product Details**



ModulED Mines 2630





Modul FD Minto 8650 Modul FD Minto 8680

Model n°	MOAULED MICTO 8630	MOAULED MICTO 8650	MOAULED MICTO 8680
Dimension (mm) <sup>*1</sup>	ø86 x h30	ø86 x h50	ø86 x h80
Volume (mm <sup>3</sup> )	63046	105077	168123
Cooling Surface (mm <sup>2</sup> )	58993	95520	150311
Weight (gr)	170	284	454
Thermal Resistance (°C/W) <sup>*2</sup>	1.8	1.5	1.2
Power Pd (W) <sup>*3</sup>	28	33	42
Heat Sink Material	AL6063-T5	AL6063-T5	AL6063-T5

<sup>\*1</sup> 3D files are avaliable in ParaSolid, STP and IGS on request

<sup>\*2</sup> The thermal resistance Rth is determined with a calibrated heat source of 30mm x 30mm central placed on the heat sink, Tamb 40°







# **Mounting Options**

The ModuLED Micro modular passive LED coolers are standard foreseen from a variety of mounting holes which allow direct mounting of LED engines, COB's and secondary optics on the LED heat sink.

In this way mechanical afterwork and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED coolers.

Below you find an overview of LED modules and COB's which standard fit on the ModuLED Micro LED cooler.

The ModuLED Micro is probably the most complete standard LED cooler with regards to mounting possibilities of Zhaga and the latest generation of COB LED modules.

For more details about the required mounting holes and thermal results for your specific LED brand and model, please refer to the brand LED cooler datasheets under "Brand Products" and the brand LED cooler overview under the "Download" menu.

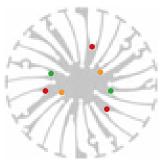
## Zhaga



The Zhaga Consortium is developing specifications that enable the interchangeability of LED light sources made by multiple different manufactures. The Zhaga specifications, known as Books, describe the interfaces between LED luminaires and LED light engines. Zhaga's members include hundreds of companies from throughout the global lighting industry. The cooperation is governed by a consortium agreement that defines rules regarding confidentiality, intellectual property and decision making.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.



### Zhaga Book 3 Spot Light Modules

Zhaga Interface Specification Book 3 defines the interfaces of a type-D LED light engine (non-socketable LED module with separate electronic control gear). The LED light engine LLE has a round disc shape with a maxium height of 7.2 mm and a typical diameter of 50 mm. It is suitable for spot-lighting and other applications that benefit from a small, circular source. Book 3 specifies a circular light-emitting surface (LES) that can have a range of diameters, namely 9 mm, 13.5 mm, 19 mm and 23 mm.



### <u>Zhaga book 3 compliant</u> LED Spot Light modules <sup>\*1</sup>

- Edison Edilex SLM
- Osram PrevaLED CORE
- Philips Fortimo SLM
- Seoul Semiconductor ACrich3
- Sharp INTERMO
- Tridonic Talexx Stark SLE
- Vexica Lumaera
- Vossloh Schwabe Luga Shop
- \*1 This is a non-binding overview of available Zhaga book 3 LED modules at press

### Zhaga Book 3 mounting through the use of LED holders and connectors

With the use of Zhaga Book 3 mechanical compatible LED holders, a wide variety of LED COB's can be mounted in the same way on these LED coolers.

Zhaga Book 3 compatiable LED holders can be found from BJB, TE Connectivity (Tyco), Molex and Ideal Industries.





# ModuLED Micto Modular Passive Star LED Cooler Ø86mm





# Zhaga Book 3 Spot Light Modules

LED COB's for which Zhaga book 3 LED holders are available

- Bridgelux V15, V18, ES rectangular
- Citizen CitiLED CLL032, CLU034, CLU036, CLL042, CLU044, CLU046, CLU710 - CLU720 - CLU730
- Cree XLamp CXA / CXB 18xx, 25xx, 30xx
- Edison Opto HM16, HM24, HM30, HM40
- Lextar Nimbus 2000, 3000, 5000
- LG Innotek LEMWM18 (10W, 13W, 17W, 24W), LEMWM28 (40W)
- Lustrous Lustron LL613F, LL620F, LL630F, LL630D, LL660D
- Nichia J216, J360, L110, L121, L204
- Osram Solerig P13, S13, S19, E30
- Lumileds Luxeon 1203, 1204, 1205, 1208, 1211 and 1216 Luxeon K12 and K16
- Prolight Opto PABA, PACC, PACD, PACF, PACG
- Samsung LC026, LC040
- Seoul Semiconductor ZC12, ZC18, ZC25, ZC40, ZC60
- Sharp Mega Zenigata and Tiger Zenigata
- Tridonic TALEXX Stark SLE Gen3 Mini LES 17
- TALEXXmodule SLE Gen4 / Gen5 15mm

#### <u>Mounting</u>

 Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks

### Reflector ring Mounting

- This optional ring can be mounted on top of the Edison Opto EdiLex spot light module and provides in this way an easy plug-and-play attachment of various reflectors.
- Mounting with 3 self tapping screws M3 x 10mm Red indicator marks

# Zhaga Book 11 Spot Light Modules

Zhaga Interface Specification Book 11 defines the interfaces of LED light engines (LLEs) comprising a circular, non-socketable LED module with a separate LED driver (electronic control gear). The LED modules in Book 11 have an overall diameter of 35 mm and a height of 3.5 mm. Zhaga Book 11 LED modules are mounted by 2 M3 screws evenly located on diameter of 25mm on the LED cooler. There are three LLE categories in Book 11, which are defined by the maximum diameter of the circular light-emitting surface (LES): 6.3 mm, 9.0 mm, 13.5 mm

Book 11 LLEs are suitable for spot-lighting and other applications that benefit from a small, circular source.

### LED COB's for which Zhaga book 11 LED holders are available Mounting

- Bridgelux V10 / V13
- Citizen CitiLED CLL022, CLU024, CLU026, CLU700
- Cree XLamp CXA / CXB 13xx, 15xx
- Edison Opto HM05, HM09, HM13
- Lextar Nimbus 1500
- Osram Soleriq P6, P9, P13, S13
- Prolight Opto PACB, PACE
- Seoul Semiconductor ZC6
- Sharp Mini Zenigata
- Sharp Iviini Zenigata
- Tridonic TALEXX Stark SLE Gen3 Mini LES 10
- TALEXXmodule SLE Gen4 10mm, Gen5 06mm 11mm

 Direct mounting with 2 M3 self tapping screws Orange indicator marks









# **Mounting Options**

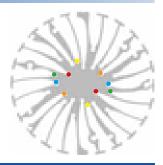
# **Bridgelux LED Arrays**

brídgelux

Bridgelux is a leading provider of high power, cost effective and energy efficient light emitting diode (LED) solutions. Leveraging patented light source technology, Bridgelux LED Arrays replace traditional technologies (such as incandescent, halogen, fluorescent and high intensity discharge lighting) with integrated solid state light sources enabling high performance and energy-efficient products for the general lighting market.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.





### **Bridgelux Vero 10 LED Array**

Model names • Vero 10 BXRC-27x1000 • Vero 10 BXRC-30x1000 • Vero 10 BXRC-35E1000

• Vero 10 BXRC-40x1000

• Vero 10 BXRC-50x1000

### • Direct mounting with 2 self tapping screws M3 x 6mm

Mounting

**Red indicator marks** 

# Bridgelux Vero 13 / Vero 18 LED Array

### Model names

- Vero 13 BXRC-27x2000
- Vero 13 BXRC-30x2000
- Vero 13 BXRC-35E2000
- Vero 13 BXRC-40x2000
- Vero 13 BXRC-50x2000
- Vero 18 BXRC-27x4000
- Vero 18 BXRC-30x4000
- Vero 18 BXRC-35E4000
- Vero 18 BXRC-40E4000
- Vero 18 BXRC-50C4000

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks



# Bridgelux Décor Vero 10 LED Array

Model names • BXRC-xxA1001-B-23 • BXRC-xxH1000-B-xx

Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks** 



# ModulED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

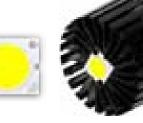
Mounting Options	
	Bridgelux Décor Vero 13 / Vero 18 LED ArrayModel namesMounting• BXRC-xxA2001-C-23• Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks• BXRC-xxA4001-F-23• Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks• BXRC-xxE4000-F-04• Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
	Bridgelux V series V 8 LED ArrayModel namesMounting• V8 BXRE-xxx0800-A• With Bridgelux V8 star holder Mounting with 2 self tapping screws M3 x 6mm Red indicator marks
	Bridgelux V series V 10 / V 13 LED Array         Model names       Mounting         • V10 BXRE-xxx1000-B-xx       • With Zhaga Book 3 LED holder         • V13 BXRE-xxx2000-C-xx       BJB spotlight connector 47.319.6214         Mounting with 2 self tapping screws M3 x 10mm       Orange indicator marks
	Bridgelux V series V 15 / V 18 LED ArrayModel namesMounting• V15 BXRE-xxx3001-D-xx• With Zhaga Book 3 LED holder• V18 BXRE-xxx4000-F-xxBJB spotlight connector 47.319.2224 Mounting with 2 self tapping screws M3 x 10mm Green indicator marks
	Bridgelux ES Star LED ArrayModel namesMounting• BXRA-xxx0540• Direct mounting with 2 self tapping screws M3 x 6mm• BXRA-xxx0740Red indicator marks• BXRA-40E0600• BXRA-40E0810• BXRA-xxC0700BXRA-xxC1000
No.818, Dashun 2nd Rd., Sanmin Dist., Kao	hsiung City 80/87, Taiwan



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# **Bridgelux ES Rectangle LED Array**

### Model names

• BXRA-xxx0800

• BXRA-xxx1200

• BXRA-xxx2000 • BXRA-40E0950

• BXRA-40E0950

- BXRA-40E2200
- BXRA-xxC1100
- BXRA-xxC1600
- BXRA-xxC2600

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Yellow indicator marks
- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2040
- Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks







# **Mounting Options**

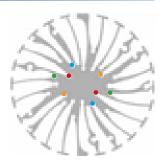
# **Citizen LED COB**



Citizen Electronics Co., Ltd. Is a precision electronics manufacturer with headquarters in Fujiyoshida City, Yamanash Japan. Prefecture and a subsidiary of Citizen Holdings Co., Ltd. Citizen Electronics is a leader in LED light sources for electronic devices and high power white LED lamps. The second generation CITILED CLL LED COB modules and the new upcoming generation CLU distinguish themselves through the combination of high lumen per watt performance combined with a perfect light quality control.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Citizen Citiled CLL022 - CLU024 - CLU026 - CLU028

- Model names
- CLL022-XXXX
- CLU024-xxxx
- CLU026-xxxxxx
- CLU028-xxxxxx

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
- With Zhaga Book 11 LED holder
  - BJB Spotlight connector 47.319.6060
  - Ideal Industries Chip-Lok™ holder 50-2002CT Mounting with 2 self tapping screws M3 x 6mm
- Orange indicator marks



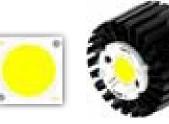


## Citizen Citiled CLL032 - CLU034 - CLU036 - CLU038

- Model names
- CLL032-xxxx
- CLU034-xxxx
- CLU036-xxxxxx
- CLU038-xxxxxx

### <u>Mounting</u>

- Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
- With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2021 Ideal Industries Chip-Lok™ holder 50-2103CT TE Connectivity Lumawise type Z50 2213254-1 TE Connectivity Lumawise type Z50 2213254-2 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks



## Citizen Citiled CLL042 - CLU044 - CLU046 - CLU048

- Model names
- CLL042-xxxx
- CLU044-xxxx
- CLU046-xxxxxx
- CLU048-xxxxxx

#### Mounting

With Zhaga Book 3 LED holder
 BJB spotlight connector 47.319.2033
 Ideal Industries Chip-Lok™ holder 50-2204CT
 Mounting with 2 self tapping screws M3 x 8mm
 Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



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## Citizen Citiled High Intensity Type CLU700

Model names • CLU700-1002B8

### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
- With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6060
- Ideal Industries Chip-Lok™ holder 50-2002CT
- Mounting with 2 self tapping screws M3 x 6mm
- Orange indicator marks

# Citizen Citiled High Intensity Type CLU710 - CLU720

### Model names • CLU710-1204B8

• CLU720-1206B8

# Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
   With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2021 Ideal Industries Chip-Lok™ holder 50-2103CT TE Connectivity Lumawise type Z50 2213254-1 TE Connectivity Lumawise type Z50 2213254-2 Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks







# **Mounting Options**

# **Cree XLamp LED Array**

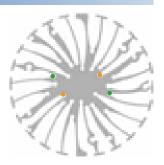


 $\label{eq:creex} Cree \, XLamp^{\otimes} \, LEDs \, deliver \, the \, industry's \, best \, lighting-class \, performance \, and \, are \, application-optimized \, to \, enable \, the \, lowest \, system \, cost.$ 

Cree's new CXA LED Arrays deliver high lumen output and efficacy in a family of single, easy-to-use components. Optimized to simplify designs and lower system cost, Cree's CXA LED arrays are available in system level performance from 300 to over 16,000 lumens and can enable applications ranging from GU10s and commercial downlights to outdoor area lighting and high-bay lighting.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Cree XLamp CXA13 / CXB13 LED Array

- Model names
- CXA1304-xxxx
- CXB1304-xxxx
- CXA1310-xxxx

#### Mounting

• With Zhaga Book 11 LED holder BJB Spotlight connector 47.319.6120 Ideal Industries Chip-Lok™ holder 50-2000CR Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks





### Cree XLamp CXA15 / CXB15 LED Array

#### Model names

- CXA1507-xxxx
- CXB1507-xxxx
- CXA1512-xxxx
- CXB1512-xxxx • CXA1520-xxxx
- CXA1520-XXX

**Model names** 

• CXA1816-xxxx

• CXB1816-xxxx

• CXA1820-xxxx

• CXB1820-xxxx

• CXA1830-xxxx

• CXB1830-xxxx

#### Mounting

- With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6101
- Ideal Industries Chip-Lok™ holder 50-2001CR
- Mounting with 2 self tapping screws M3 x 8mm
- Orange indicator marks





## Cree XLamp CXA18 / CXB18 LED Array

#### <u>Mounting</u>

- With Zhaga Book 3 LED holder
- BJB Spotlight connector 47.319.2131 (CXA/CXB1830 excluded)
- Ideal Industries Chip-Lok™ holder 50-2101CR
- TE Connectivity Lumawise type Z50 2213401-1
- TE Connectivity Lumawise type Z50 2213401-2 Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks

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# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Cree XLamp CXA25 / CXB25 LED Array

Model names • CXA2520-xxxx • CXA2530-xxxx • CXB2530-xxxx

## Mounting

• With Zhaga Book 3 LED holder

- BJB Spotlight connector 47.319.2141
- Ideal Industries Chip-Lok<sup>™</sup> holder 50-2102CR
- Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks

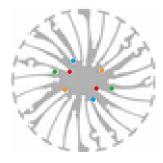
# Edison Opto LED Modules and COB's



Edison Opto with headquarters in Chung-Ho Dist, New Taipei City, Taiwan is a professional LED manufacture with specializes in designing and producing Highpower LEDs, solid state lighting applications, LED sensors and SPDIFs. In response to rapid growth of capacity demand, Edison Opto has established factories in Dongguan and Yangzhou China and subsidiaries in USA and Germany. Edison Opto COB LED modules outstand in light quality and are available in the broadest lumen and CRI range available on the market.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Edison Opto EdiPower II Star series

- Model names • 2PHV05xxxx • 2PHV06xxxx • 2PHV07xxxx
- 2PHV10xxxx

#### Mounting

 Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks** 



## Edison Opto Edipower II HM

Model Names 9W • 2PHM09xxxx

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks**
- With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6060
- Ideal Industries Chip-Lok<sup>™</sup> holder 50-2002CT
- Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Edison Opto Edipower II HM

Model Names 16W - 30W • 2PHM16xxxx • 2PHM30xxxx

### <u>Mounting</u>

- Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
- With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2021 Ideal Industries Chip-Lok™ holder 50-2103CT TE Connectivity Lumawise type Z50 2213254-1 TE Connectivity Lumawise type Z50 2213254-2 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks





# Edison Opto Edipower II HM

Model Names 40W • 2PHM40xxxx

#### Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2033 Ideal Industries Chip-Lok™ holder 50-2204CT Mounting with 2 self tapping screws M3 x 6mm Green indicator marks



# Edison Opto EdiLex Spot Light Module (SLM)

Model Names
• 5PHR09xxxx
• 5PHR11xxxx
• 5PHR22xxxx
• 5PHV35xxxx

#### Mounting

 Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks





# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

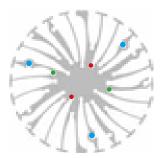
# LG Innotek LED Modules and COB



LG Innotek is a global specialized material and component manufacturer who is making a better world through cutting edge core component technology that is leading the market and and opening a smarter future through the development of new eco-friendly materials. With the world's highest production capacity as a singlefactory and a solid LED business base built over more than a decade, LG Innotek's Paju LED factory produces 2 billion chips a month. Their LEMWM COB LED modules deliver a perfect lumen per watt ratio in an uncompromised lighting quality.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







## LG LEMWM18 10W/13W/17W/24W COB

Mounting

# **Model names**

- LEMWM18580xxxx
- LEMWM18680xxxx • LEMWM18780xxxx
- LEMWM18880xxxx
- Direct mounting with 2 self tapping screws M2 x 6mm **Red indicator marks**
- With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2080 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2100LG Mounting with 2 self tapping screws M3 x 8mm **Green indicator marks**



## LG LEMWM28 COB

**Model names** • LEMWM28xxxx

#### Mounting

• With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2033 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2204CT Mounting with 2 self tapping screws M3 x 8mm **Green indicator marks** 



## LG Eagle Eye LED Modules

Model names • LLDMWW0-15KxxxA

Mounting • Direct mounting with 3 self tapping screws M4 x 6mm Blue indicator marks









# **Mounting Options**

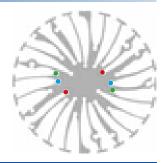
# Lumileds LED Array & COB



Lumileds LUXEON COB is a new breakthrough in efficacy for arrays. Due to its industry leading small Light Emitting Surfaces (LES), the COB array is very easy work with and will enable easier and less expensive designs. All LUXEON COBs are available in a single 3-step as well as a single 5-step MacAdam Ellipse, ensuring uniform optical performance in the application. Ideal applications include down lights and directional lamps.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







## Luxeon COB 1203

Model names • Luxeon COB LHC1-xxxx-1203

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
- With Zhaga Book 3 LED holder
- Ideal Industries Chip-Lok<sup>™</sup> holder 50-2100NC
- TE Connectivity Lumawise type Z50 2213382-1
- TE Connectivity Lumawise type Z50 2213382-2
- Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks





### Luxeon COB 1204 - 1205 - 1208

Model names • Luxeon COB LHC1-xxxx-1204 • Luxeon COB LHC1-xxxx-1205 • Luxeon COB LHC1-xxxx-1208

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
- With Zhaga Book 3 LED holder
   BJB spotlight connector 47.319.2011
   Ideal Industries Chip-Lok™ holder 50-2100SH
   TE Connectivity Lumawise type Z50 2213130-1
   TE Connectivity Lumawise type Z50 2213130-2
   Mounting with 2 self tapping screws M3 x 8mm
   Green indicator marks



# Luxeon COB 1211

Model names
• Luxeon COB LHC1-xxxx-1211

#### Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2033 Ideal Industries Chip-Lok™ holder 50-2204CT Mounting with 2 self tapping screws M3 x 8mm Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Luxeon COB 1216

Model names

Luxeon COB LHC1-xxxx-1216

### Mounting

With Zhaga Book 3 LED holder
 BJB spotlight connector 47.319.2033
 Ideal Industries Chip-Lok™ holder 50-2204CT
 Mounting with 2 self tapping screws M3 x 8mm
 Green indicator marks





## Luxeon K Array K12 - K16

Model names • Luxeon K12 LXKx-Pxxx-xx12 (A) • Luxeon K16 LXKx-Pxxx-xx16 (A)

#### Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2070 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks







# **Mounting Options**

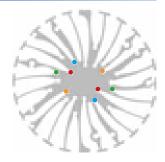
# **Luminus COB Arrays**



Patented, high performance Luminus LEDs are the brightest and most versatile solid state light sources available today, redefining the solid state lighting landscape by enabling the adoption of LED technology into emerging markets. Luminus technology is used in commercial and industrial lighting fixtures, theatrical lighting, projectors, signs, medical equipment, UV curing... just about anywhere a bright, efficient, reliable, long-life light source is needed.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







## Luminus Xnova COB Array

Model names • CLM-9 • CXM-9 (ACxx) • CHM-9 (ACxx)

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
- Red indicator marks
- With Zhaga Book 11 LED holder
- BJB spotlight connector 47.319.6060
- Mounting with 2 self tapping screws M3 x 6mm
- Orange indicator marks





### Luminus Xnova COB Array

Model names • CXM-11 (ACxx) • CHM-11

#### <u>Mounting</u>

- Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2021
- Mounting with 2 self tapping screws M3 x 6mm
- Green indicator marks



### Luminus Xnova COB Array

Model names • CLM-14 • CXM-14 (ACxx) • CHM-14 (ACxx)

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm
- Blue indicator marks
- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2021
- Mounting with 2 self tapping screws M3 x 6mm
- Green indicator marks



# ModuLED Micto Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Luminus Xnova COB Array

Model names

• CLM-22

• CXM-22

#### Mounting

- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2033
- TE Connectivity Lumawise type Z50 2213480-1
- Mounting with 2 self tapping screws M3 x 6mm
- Green indicator marks







# **Mounting Options**

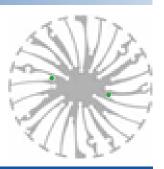
# **Lustrous LED COB**



LUSTROUS unique Chip-on-Board (COB) packaging technology of High Power LED leads the core competence of LUSTROUS. COB packaging technology shows excellent thermal management and high efficiency performance. One of the benefits of COB is bright, uniform light output. The excellent low thermal resistance is achieved through state of the art COB technology on highly conductive substrates. This enables low junction temperatures at chip level for much higher efficiencies.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.





## Lustrous Lustron LL613F - LL620F LED COB

Model names • Lustron LL613F1206-xxx • Lustron LL620F1208-xxx

Model names

Lustron LL630F1210-xxx

Lustron LL630D1210-xxx

Lustron LL660D1210-xxx

#### Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2021 Ideal Industries Chip-Lok™ holder 50-2103CT Mounting with 2 self tapping screws M3 x 8mm Green indicator marks



## Lustrous Lustron LL630F - LL630D - LL660D LED COB

Mounting

With Zhaga Book 3 LED holder
 BJB spotlight connector 47.319.2033
 Ideal Industries Chip-Lok™ holder 50-2204CT
 Mounting with 2 self tapping screws M3 x 8mm
 Green indicator marks





# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

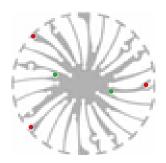
# **Osram PrevaLED LED Modules**



With the PrevaLED Core and PrevaLED Core AC, Osram leads the path of versatile LED light modules interchangeable according Zhaga book 3 specifications. With an initial color binning below 3 steps Mc Adam, a wide range of lumen packages from 1.100Im all the way up to 5.000Im and a broad availability of color temperatures, the Osram PrevaLED Core found it's strive in high-end shop and down light applications with an uncompromised lighting quality.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







## Osram PrevaLED Core Z3

Model names • PL-CORE-1100-xxx-Z3 • PL-CORE-2000-xxx-Z3 • PL-CORE-3000-xxx-Z3 • PL-CORE-5000-xxx-Z3

#### Mounting

 Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks





## Osram PrevaLED Core Z4

Model names • PL-CORE-Z4-2000-xxx • PL-CORE-Z4-3000-xxx • PL-CORE-Z4-4500-xxx • PL-CORE-Z4-5000-xxx

### Mounting

• Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks

# Mode •PL-C

## Osram PrevaLED Core AC

Model names • PL-CORE-AC-800xx • PL-CORE-AC-2000xx

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**





## Osram PrevaLED Core AC PRO

Model names • PL-CORE-AC-PRO-2000-xxx • PL-CORE-AC-PRO-3000-xxx

### <u>Mounting</u>

• Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks





# Osram PrevaLED Cube G2

Model names • PL-CUBE-1100-xxx-0.35A-G2 • PL-CUBE-2000-xxx-0.5A-G2 • PL-CUBE-3000-xxx-0.7A-G2

#### Mounting

• Direct mounting with 3 self tapping screws M3 x 10mm Red indicator marks



## **Osram PrevaLED Cube AC**

Model names • LEP-CUB-AC-xxx-G1 • PL-CUBE-AC-2000-xxx-G2 • PL-CUBE-AC-3000-xxx-G2

#### Mounting

• Direct mounting with 3 self tapping screws M3 x 10mm Red indicator marks









# **Mounting Options**

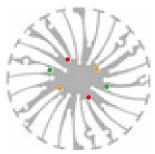
# **Osram Opto Semiconductors LED COB**



Osram SOLERIQ <sup>®</sup> LEDs are designed to meet the requirements of professional indoor general lighting applications. Large flux output, small light emitting surfaces, variation, CRI greater than 80 and easy to use Chip-on-Board technology support easy and creative lighting design. These properties make SOLERIQ <sup>®</sup> LED COB modules a high efficient, high-quality and price-performance-optimized solution for all demanding and at the same time cost-conscious lighting manufactures and designers.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Osram Soleriq P6 LED COB

Model names • GW MAEGB1.EM • GW MAEGB1.CM

#### Mounting

With Zhaga Book 11 LED holder
 BJB Spotlight connector 47.319.6190
 Mounting with 2 self tapping screws M3 x 8mm
 Orange indicator marks



## Osram Soleriq P9 LED COB

Model names • GW MAFJB1.EM • GW MAFJB1.CM

#### <u>Mounting</u>

• With Zhaga Book 11 LED holder BJB Spotlight connector 47.319.6200 Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks



## Osram Soleriq P13 LED COB

Model names • GW MAGMB1.EM • GW MAGMB1.CM

#### Mounting

• With Zhaga Book 3 LED holder

- Ideal Industries Chip-Lok™ holder 50-2101CR Mounting with 2 self tapping screws M3 x 8mm Green indicator marks
- With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6111
- Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Osram Soleriq S13 LED COB

Model names • GW-KAGHB1.xxxx

### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
- With Zhaga Book 3 LED holder
- Ideal Industries Chip-Lok<sup>™</sup> holder 50-2101CR TE Connectivity Lumawise type Z50 2213401-1 TE Connectivity Lumawise type Z50 2213401-2 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks
- With Zhaga Book 11 LED holder
   BJB Spotlight connector 47.319.6111
   Mounting with 2 self tapping screws M3 x 8mm
   Orange indicator marks





# Osram Soleriq S19 LED COB

Model names • GW-KAHLB1-xxxx

#### Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2170 TE Connectivity Lumawise type Z50 2213407-1 TE Connectivity Lumawise type Z50 2213407-2 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks



## Osram Soleriq E30 LED COB

Model names • GW KAJRB2.EM-STTQ-xxxx • GW KAJRB2.EM-TPTR-xxxx

### **Mounting**

Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks
With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2090 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks







# **Mounting Options**

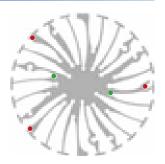
# **Philips LED Modules**



The third Philips Fortimo LED SLM generation is the ideal solution for spot lighting fixtures and highly efficient compact down light luminaires. It is specifically designed for the retail market showcasing retail merchandise in bright and vivid light. This generation is equipped with new Chip-On-Board (COB) LED technology. This technology enables the creation of the most efficient point source Philips LED system available.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Philips Fortimo SLM GEN3 / GEN4 LED Modules

### Model names

Fortimo LED SLM 2000 G3

Fortimo LED SLM 3000 G3

• Fortimo LED SLM 4000 G3

- Fortimo LED SLM 4500 G3
- Fortimo LED SLM 1100 G4
- Fortimo LED SLM 2000 G4
- Fortimo LED SLM 3000 G4
- Fortimo LED SLM 4500 G4

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks

## Philips Fortimo DLM GEN5 LED Modules

Model names • Fortimo DLM 1100 G5 • Fortimo DLM 2000 G5 • Fortimo DLM 3000 G5

#### Mounting

• Direct mounting with 3 self tapping screws M3 x 8mm **Red indicator marks** 









# **Mounting Options**

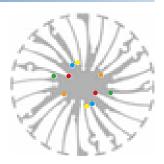
# **Prolight Opto LED COB's**



Founded in October 2004, Prolight Opto Technology Corporation is a professional manufacturer of LED packaging, dedicated to the research, development, and manufacturing of mid-to-high-power, high reliability LED packages.Prolight Opto continually invests over 6% of sales revenue in R&D and patents. With own package patents from the US and Taiwan they insure a wide range of LED emitters in the . smallest foot prints and COB LED modules with perfect thermal management and high density lumen output.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







# Prolight Opto BS series PABS star COB

Model names • PABS-6xxx-xxxx • PABS-9xxx-xxxx

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks** 



## Prolight Opto BI series PABA COB

#### **Model names**

- PABA-10xxx-xxxx
- PABA-15xxx-xxxx • PABA-22xxx-xxxx
- PABA-26xxx-xxxx
- PABA-35xxx-xxxx
- PABA-50xxx-xxxx

## Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm

• Direct mounting with 2 self tapping screws M3 x 6mm

Mounting with 2 self tapping screws M3 x 6mm

- Yellow indicator marks
- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2040
- Mounting with 2 self tapping screws M3 x 6mm
- **Green indicator marks**

**Red indicator marks** 

**Orange indicator marks** 

• With Zhaga Book 11 LED holder BJB Spotlight connector 47.319.6060



# Prolight Opto CE series PACE COB

#### Model names

#### • PACE-14xxx-xxxx

- PACE-21xxx-xxxx
- PACE-28xxx-xxxx

Mounting





# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



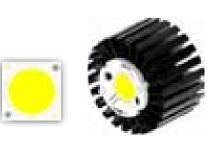
Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Prolight Opto CIII series PACD COB

Model names • PACD-40xxx-xxxx

## Mounting

• With Zhaga Book 3 LED holder BJB spotlight connector 47.319.2033 Mounting with 2 self tapping screws M3 x 6mm Green indicator marks

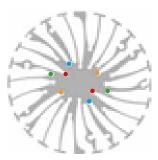
# Seoul Semiconductor LED COB



The new Seoul Semiconductor ZC series Chip-On-Board (COB) LED Arrays offer high lumen density and efficacies of up to 140lm/W in a single, easy-to-use LED component family. Available in all major color temperatures from 2700K up to 6000K, these high flux packages deliver system level performance of 700 lumens to over 6,000 lumens. The new ZC series family is available in a single 3-step MacAdam Ellipse binning, ensuring excellent color consistency with minimum CRI options of 70, and 80 combining high quality of light with high efficacy.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0 1-0 15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.





### Seoul Semiconductor ZC 6 LED COB

- Model names
- SDW01F1C
- SDW81F1C

#### SDW91F1C

**Red indicator marks** 

**Orange indicator marks** 

**Green indicator marks** 

• With Zhaga Book 11 LED holder BJB Spotlight connector 47.319.6060 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2002CT Mounting with 2 self tapping screws M3 x 8mm



# Seoul Semiconductor ZC 12 / ZC 18 LED COB

Model names

- SDW02F1C
- SDW82F1C
- SDW92F1C
- SDW03F1C
- SDW83F1C
- SDW93F1C

#### Mounting

Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks • With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2021

• Direct mounting with 2 self tapping screws M3 x 6mm

- Ideal Industries Chip-Lok<sup>™</sup> holder 50-2103CT
- TE Connectivity Lumawise type Z50 2213254-1
- TE Connectivity Lumawise type Z50 2213254-2
- Mounting with 2 self tapping screws M3 x 8mm



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



Model names

• SDW04F1C

• SDW84F1C

SDW94F1C
 SDW05F1C

SDW05FIC

• SDW85F1C

• SDW95F1C

### Mounting

• With Zhaga Book 3 LED holder

BJB spotlight connector 47.319.2033 Ideal Industries Chip-Lok™ holder 50-2204CT

Mounting with 2 self tapping screws M3 x 8mm

Green indicator marks



# Seoul Semiconductor ACrich AC Zhaga LED COB

Model names • ACrich AC Zhaga COB 30W

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

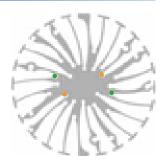
# Sharp LED Modules & COB



Sharp Zenigata Chip on Board (COB) technology leverages 40 years of LED expertise to help your products outshine the competition with some of the highest brightness-per-watt in the industry. Sharp's new Mega Zenigata 50W – 80W modules take traditional, high-power lighting applications head on with power-saving LED alternatives. Sharp Devices Europe has launched an important new portfolio of LED modules dubbed INTERMO. The Standard INTERMO is a Zhaga Book 3 form-factor module, which ensures compatibility with a large eco-system of third-party products.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.





## Sharp INTERMO Standard / Slim LED Modules

### <u>Model names</u>

GW7MMCxxGZC - 3000 lm
 GW7MGDxxGZC - 3000 lm
 GW7MMDxxGZC - 4000 lm

GW7MGExxGZC - 4000 lm
 GW7MMExxGZC - 5000 lm

- Mounting
- Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks





## Sharp Mega Zenigata 15-25W/25-40W/35-50W/50-80W LED COB

Model names • GW5DxAxxN04 • GW6DxAxxNFC • GW5DxCxxM04 • GW6DxCxxNFC • GW6DxDxxNFC • GW5DxExxMR5 • GW6DxExxNFC

#### <u>Mounting</u>

- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2011
- Ideal Industries Chip-Lok™ holder 50-2100SH
- Mounting with 2 self tapping screws M3 x 6mm
- Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



# Sharp Tiger Zenigata 25W LED COB

Model names • GW6TGCBG40C

### <u>Mounting</u>

- With Zhaga Book 3 LED holder
- BJB spotlight connector 47.319.2051 Mounting with 2 self tapping screws M3 x 6mm
- Green indicator marks



# <u>Sharp Mini Zenigata 4-10W/10-15W/15-24W LED COB</u>

### Model names

- GW5BQCxxK03
- GW5BQFxxK03 • GW5BMFxxK04
- GW5BIVIFXXK04 • GW5BTJXXK03
- GW5BIJXXK03 • GW5BMCxxKG4
- GW5BIVICXXKG4 • GW6BxGxxHED
- GW5BMJxxK04
- GW6BxExxHED
- GW6BxExxHED
- GW5BMRxxK05
- GWSBINKXXKUS
   GW6BxRxxHED
- GW6BXKXXHED • GW6BxSXXHED

# <u>Mounting</u>

- With Zhaga Book 11 LED holder
- BJB spotlight connector 47.319.6180
- Ideal Industries Chip-Lok™ holder 50-2000P
- Mounting with 2 self tapping screws M3 x 6mm Orange indicator marks

# 0



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

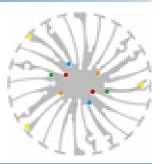
**Tridonic LED Modules and COB** 

# 

With the TALEXX LED products Tridonic gives you the confidence that your chosen lighting solution will give you precisely the results you want. Thanks to Tridonic's many years of experience in product development they have been able to raise the quality of light from their LEDs to new levels. The production series have an exceptionally constant light color so they guarantee a uniform and crystal clear color appearance. In addition to high efficiency and balanced distribution of light Tridonic offers you impressive robustness in the latest generation of their products and the resultant long life will save you maintenance and repair costs.

#### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.







Model names • STARK-SLE-G3-19-xxx • STARK-SLE-G3-23-xxx

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 8mm Green indicator marks



Model names • STARK-SLE-PURE-G3-10-xxx

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm Red indicator marks
  With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6060 Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks



## TALEXX Stark SLE GEN3 Mini LES-17 Select / Classic / Art

Model names • STARK-SLE-PURE-G3-17-xxx

#### <u>Mounting</u>

Direct mounting with 2 self tapping screws M3 x 6mm Blue indicator marks
With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2021 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks





# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**



### **Model names**

- SLE G4 10mm 1200lm xxx x EXC/ADV
- SLE G4 10mm 600lm xxx R SNC • SLE G4 10mm 800lm xxx R SNC
- SLE G4 10mm 1200lm xxx R SNC

# Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks**
- With Zhaga Book 11 LED holder Tridonic SLE G4 housing 28001038 BJB Spotlight connector 47.319.6060 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2002CT Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks

## TALEXXmodule SLE GEN4 15mm Excite / Advanced

#### Model names • SLE G4 15mm 2000lm xxx x EXC/ADV

#### Mounting

• With Zhaga Book 3 LED holder BJB Spotlight connector 47.319.2021 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2103CT TE Connectivity Lumawise type Z50 2213254-1 TE Connectivity Lumawise type Z50 2213254-2 Mounting with 2 self tapping screws M3 x 8mm Green indicator marks • With Zhaga Book 11 LED holder Tridonic SLE G4 housing 28001039

- Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks





# TALEXXmodule SLE GEN4 15mm D50 - 19mm - 23mm Excite / Advanced

#### Model names

- SLE G4 15mm 2000lm xxx H
- EXC/ADV D50
- SLE G4 19mm 3000lm xxx x
- EXC/ADV
- SLE G4 23mm 5000lm xxx x EXC/ADV

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 8mm Green indicator marks

## TALEXXmodule SLE GEN5 06mm - 11mm Excite / Advanced

#### Model names

- SLE G5 06mm 1200lm xxx x FXC/ADV
- SLE G5 11mm 3000lm xxx x EXC/ADV

#### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm **Red indicator marks**
- With Zhaga Book 11 LED holder
- BJB Spotlight connector 47.319.6060 Ideal Industries Chip-Lok<sup>™</sup> holder 50-2002CT Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks







# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

### TALEXXmodule SLE GEN5 15mm Excite / Advanced

#### Model names

- SLE G5 15mm 2000lm xxx x EXC/ADV
- SLE G5 15mm 3000lm xxx x EXC/ADV
- SLE G5 15mm 4000lm xxx x FXC/ADV
- SLE G5 15mm 5000lm xxx x EXC/ADV

## Mounting

- With Zhaga Book 3 LED holder
- BJB Spotlight connector 47.319.2021
- Ideal Industries Chip-Lok™ holder 50-2103CT
- TE Connectivity Lumawise type Z50 2213254-1 TE Connectivity Lumawise type Z50 2213254-2
- Mounting with 2 self tapping screws M3 x 8mm
- Green indicator marks
- With Zhaga Book 11 LED holder
- Tridonic SLE housing 28001039 Mounting with 2 self tapping screws M3 x 8mm
- **Orange indicator marks**



# TALEXXmodule SLE GEN5 19mm - 23mm Excite / Advanced

**Model names** • SLE G5 19mm 5000lm xxx x EXC/ADV • SLE G5 23mm 6000lm xxx x EXC/ADV

#### Mounting

 Direct mounting with 2 self tapping screws M3 x 8mm Green indicator marks



# TALEXX Stark DLE GEN2 & TALEXX module DLE GEN3

#### Model names

- STARK DLE GEN2 CLASSIC 2000
- STARK DLE GEN2 CLASSIC 3000
- DLE-G2-LES65-1100-XXX-AC
- DLE-G2-LES65-2000-XXX-AC
- DLE G3 65mm 2000lm xxx x EXC
- DLE G3 65mm 3000lm xxx x EXC
- DLE G3 65mm 2000lm xxx x ADV
- DLE G3 65mm 3000lm xxx x ADV

### Mounting

• Direct mounting with 3 self tapping screws M3 x 8mm Yellow indicator marks



## TALEXX STARK SLE GEN6 10mm Advanced

**Model names** • SLE G6 10mm 1200lm XXX R ADV

### Mounting

• With Zhaga Book 11 LED holder Tridonic SLE housing 28001038 Mounting with 2 self tapping screws M3 x 8mm **Orange indicator marks** 



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**





## TALEXX STARK SLE GEN6 15mm Advanced

Model names • SLE G6 15mm 3000lm XXX R ADV • SLE G6 15mm 3000lm XXX C ADV Mounting • With Zhaga Book 11 LED holder Tridonic SLE housing 28001039 Mounting with 2 self tapping screws M3 x 8mm Orange indicator marks





## TALEXX STARK SLE GEN6 15mm Advanced

Model names • SLE G6 15mm 3000lm XXX H ADV

Mounting
• Direct mounting with 2 self tapping screws M3 x 6mm
Orange indicator marks



### TALEXX STARK SLE GEN6 15mm D50 Advanced

Model names • SLE G6 15mm 3000lm XXX H ADV D50

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 6mm Green indicator marks



# ModuLED Micro Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**

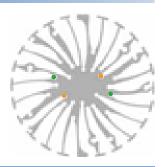
# **Vossloh Schwabe LED Modules**



Vossloh-Schwabe is an independent brand within the Panasonic Group responsible for the global development of the business area "Components for light technology". Panasonic employs 367,000 members of staff with an annual turnover of 76.75 billion Euros (8692.7 billion yen) and is represented throughout the world by more than 634 companies or representations in Asia, America and Europe.The Vossloh Schwabe Luga Shop LED modules are ideal solution for high-end luminaire designs where quality stands at the first place.

### Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be preapplied from MechaTronix.





# Luga Shop 2014 LED modules

Model names • WU-M-484 / WU-M-461 • WU-M-485 / WU-M-462 • WU-M-486 / WU-M-464

#### Mounting

• Direct mounting with 2 self tapping screws M3 x 10mm Green indicator marks





## Luga Shop 2014 Kit LED COB

Model names • DMS088 • DMS128 • DMS158

### Mounting

• With Luga Shop Kit holder Mounting with 2 self tapping screws M3 x 6mm Green indicator marks



## Luga Shop C 2016 COB 1500lm - 4500lm

Model names • DMC124xxxF • DMC125xxxF • DMC128xxxF

### Mounting

• With Luga Shop C holder 559165

- Mounting with 2 self tapping screws M3 x 6mm
- **Orange indicator marks**





# ModuLED Micto Modular Passive Star LED Cooler Ø86mm



# **Mounting Options**





## Luga Shop C 2016 COB 3000lm - 15000lm

Model names • DMC12CxxxF • DMC18CxxxF

### Mounting

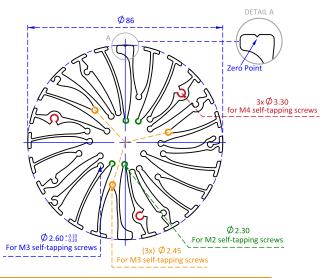
- With Luga Shop C holder 559164
- Mounting with 2 self tapping screws M3 x 6mm Green indicator marks

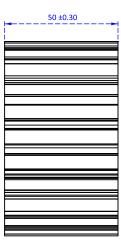


# ModuLED Micro Modular Passive Star LED Cooler Ø86mm

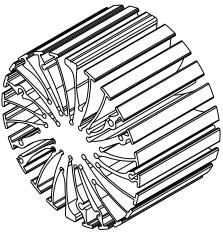


# **Drawings & Dimensions**





# Example: ModuLED Micro 8650



# **Thermal Data**

Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)		Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)			ModuLED Micro performance data at a heat sink to ambient temperature difference, ΔT <sub>hs-amb</sub> , of 50 °C 2.5 2.5	
		ModuLED Micro 8630	ModuLED Micro 8650	ModuLED Micro 8680	ModuLED Micro 8630	ModuLED Micro 8650	ModuLED Micro 8680	Q 2.2 equation (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2
5 10	5	2.4	2.4	2.0	12	12	10	e-a
	10	2.2	2.0	1.7	22	20	17	
Pd(W)	15	2.0	1.8	1.53	30	27	23	
/er F	20	1.9	1.7	1.4	38	34	28	
Power	25	1.84	1.6	1.36	46	40	34	al al
	30	1.76	1.53	1.3	53	46	39	ة 1.3
Dissipated	35	-	1.48	1.25	-	52	44	1.6 1.3 1.6 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Dis	40	-	1.45	1.2	-	58	48	
	45	-	-	1.17	-	-	53	Image: Second

### Heat sink to ambient temperature rise T<sub>hs-amb</sub> (°C)

---- ModuLED Micro 8630 ---- ModuLED Micro 8650 ---- ModuLED Micro 8680

60 50 40 30 20 10 10 15 20 25 30 35 40 45 Dissipated Power Pd (W)

